

Listing of Claims:

1. (original) An information recording apparatus comprising:

a recording device for irradiating an information recording medium with laser light and for recording information onto the information recording medium;

an obtaining device for obtaining at least one of (i) a special OPC strategy for defining a waveform of the laser light used to calculate, at the first recording speed, an optimum laser power of the laser light for recording the information at a second recording speed different from a first recording speed, and (ii) a recording strategy for defining a waveform of the laser light used to record the information at the second recording speed;

a power calculating device for calculating the optimum laser power by using the special OPC strategy at the first recording speed; and

a controlling device for controlling said recording device to record the information at the second recording speed, by using the calculated optimum laser power and the recording strategy.

2. (previously presented) An information recording apparatus comprising:

a recording device for irradiating an information recording medium with laser light and for recording information onto the information recording medium;

a first power calculating device for calculating, at a first recording speed, a first optimum laser power of the laser light for recording the information at the first recording speed, by using an usual OPC strategy for defining a waveform of the laser light used to calculate the first optimum laser power; and

a second power calculating device for calculating, at the first recording speed, a second optimum laser power, by using a special OPC strategy for defining a waveform of the laser light used to calculate the second optimum laser power of the laser light for recording the information at a second recording speed different from the first recording speed.

3. (original) The information recording apparatus according to claim 1, wherein

said power calculating device calculates the optimum laser power by recording a test-writing pattern for calculating the optimum laser power, and

the special OPC strategy makes the waveform of the laser light for recording the test-writing pattern at the first recording speed, shorter than the waveform of the laser light for recording the information at the first recording speed.

4. (original) The information recording apparatus according to claim 2, wherein

said second power calculating device calculates the second optimum laser power by recording a test-writing pattern for calculating the second optimum laser power, and

the special OPC strategy makes the waveform of the laser light for recording the test-writing pattern at the first recording speed, shorter than the waveform of the laser light for recording the information at the first recording speed.

5. (original) The information recording apparatus according to claim 3, wherein the special OPC strategy makes a percentage to shorten the waveform of the laser light for recording the test-writing pattern having a relatively short length, larger than a percentage to shorten the waveform of the laser light for recording the test-writing pattern having a relatively long length, on the basis of a length of the test-writing pattern recorded on the information recording medium.

6. (original) The information recording apparatus according to claim 4, wherein the special OPC strategy makes a percentage to shorten the waveform of the laser light for recording the test-writing pattern having a relatively short length, larger than a percentage to shorten the waveform of the laser light for recording the test-writing pattern having a relatively long length, on the basis of a length of the test-writing pattern recorded on the information recording medium.

7. (original) The information recording apparatus according to claim 1, wherein the second recording speed is faster than the first recording speed.

8. (original) The information recording apparatus according to claim 2, wherein the second recording speed is faster than the first recording speed.

9. (original) The information recording apparatus according to claim 1, wherein an amplitude of the waveform defined by the special OPC strategy is the same as an amplitude of the waveform defined by the recording strategy.

10. (previously presented) An information recording method comprising:

a recording process of irradiating an information recording medium with laser light and of recording information onto the information recording medium;

an obtaining process of obtaining at least one of (i) a special OPC strategy for defining a waveform of the laser light used to calculate, at the first recording speed, an optimum laser power of the laser light for recording the information at a second recording speed different from a first recording speed, and (ii) a recording strategy for defining a waveform of the laser light used to record the information at the second recording speed;

a power calculating process of calculating the optimum laser power by using the special OPC strategy at the first recording speed; and

a controlling process of controlling said recording device to record the information at the second recording speed, by using the calculated optimum laser power and the recording strategy.

11. (previously presented) An information recording method comprising:

a recording process of irradiating an information recording medium with laser light and of recording information onto the information recording medium;

a first power calculating process of calculating, at a first recording speed, a first optimum laser power of the laser light for recording the information at the first recording speed, by using an usual OPC strategy for defining a waveform of the laser light used to calculate the first optimum laser power; and

a second power calculating process of calculating, at the first recording speed, a second optimum laser power, by using a special OPC strategy for defining a waveform of the laser light used to calculate the second optimum laser power of the laser light for recording the information at a second recording speed different from the first recording speed.

12. (previously presented) A computer program product in a computer-readable medium for tangibly embodying a program of instructions executable by a computer provided for the an information recording apparatus, to make the computer function as at least one portion of a recording device, an obtaining device, a power calculating device and a controlling device,

said information recording apparatus comprising:

said recording device for irradiating an information recording medium with laser light and for recording information onto the information recording medium;

said obtaining device for obtaining at least one of (i) a special OPC strategy for defining a waveform of the laser light used to calculate, at the first recording speed, an optimum laser power of the laser light for recording the information at a second recording speed different from a first recording speed, and (ii) a recording strategy for defining a waveform of the laser light used to record the information at the second recording speed;

said power calculating device for calculating the optimum laser power by using the special OPC strategy at the first recording speed; and

said controlling device for controlling said recording device to record the information at the second recording speed, by using the calculated optimum laser power and the recording strategy.

13. (previously presented) A computer program product in a computer-readable medium for tangibly embodying a program of instructions executable by a computer provided for an information recording apparatus, to make the computer function as at least one portion of a recording device, a first power calculating device and a second power calculating device,

said information recording apparatus comprising:

said recording device for irradiating an information recording medium with laser light and for recording information onto the information recording medium;

said first power calculating device for calculating, at a first recording speed, a first optimum laser power of the laser light for recording the information at the first recording speed, by using an usual OPC strategy for defining a waveform of the laser light used to calculate the first optimum laser power; and

said second power calculating device for calculating, at the first recording speed, a second optimum laser power, by using a special OPC strategy for defining a waveform of the laser light used to calculate the second optimum laser power of the laser light for recording the information at a second recording speed different from the first recording speed.

14. (previously presented) An information recording medium comprising:

a data recording area to record therein information;
and

a control area to record therein at least a special OPC strategy for defining a waveform of the laser light used to calculate, at the first recording speed, an optimum laser power of the laser light for recording the information at a second recording speed different from a first recording speed.

15. (previously presented) The information recording medium according to claim 14, wherein:

an usual OPC strategy for defining a waveform of the laser light used to calculate an optimum laser power of the laser light for recording the information at the first recording speed is recorded in said control area.

16. (previously presented) The information recording medium according to claim 14, wherein

a recording strategy for defining a waveform of the laser light used to record the information at the second recording speed is recorded in said control area.